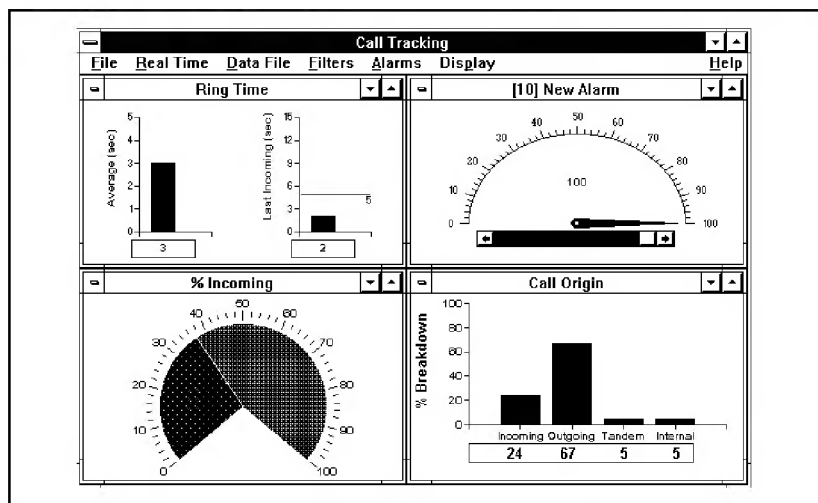


File Monitor Functions

This chapter describes in detail all of the Call Tracking main functions as they appear in the main window. When you first access Call Tracking, the main window will appear containing the separate graphical display windows. The commands listed in the menu bar at the top of the main window allow you to configure and set up the graphical displays as a whole. Use these commands to start monitoring the call data, set the filters and alarms, and set up the way the graphical displays appear.

Figure 2
Call Tracking main window



File

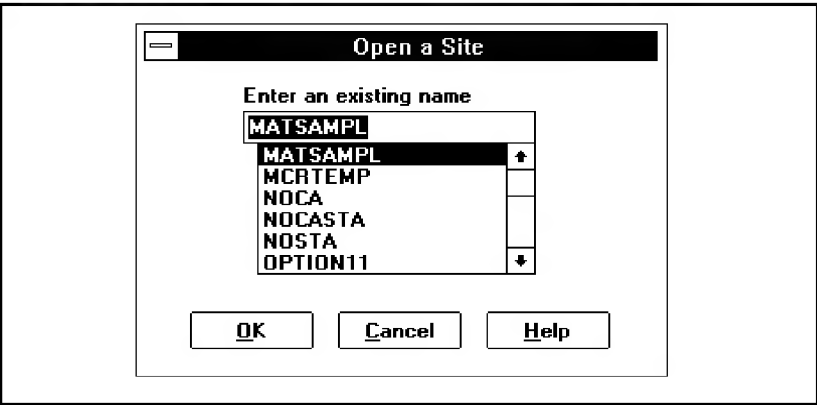
The File commands enable you to affect the main action of the call records as they are collected. Use these functions to open and close a site, pause the data collection, print graphical displays of data, reset the call collection, or display Employee Database information.

Open Site

The Open Site function allows you to open a site for monitoring. You must open the site (select the site name to which its data corresponds) before you can monitor call data. Notice that the Call Tracking commands are inactive and thus appear grayed. These commands will become active once you open a site. Each Call Tracking site represents the location and configuration of a specific Meridian 1.

To open a site, click on **Open Site** from the File drop-down menu. When the Open Site dialog appears, select the site from the list of predefined site names and click on the **OK** command button. Once you have opened a site, you are ready to monitor its call data. The sites in this list were previously created using the Site Configuration application from MAT Common Services. Refer to the *MAT Common Services User guide* for complete details on creating sites.

Figure 3
 Open Site dialog



Close Site

The Close Site command allows you to close the currently opened site. This protects the site information from being viewed by unauthorized users. Once you have closed the site, you can open it again using the Open Site command.

Note: You cannot close a site if monitoring is still in progress. Disconnect the active site or end the data file monitoring first and then close the site.

Call Tracking ID Code

The Call Tracking ID Code is a numeric code which identifies the current copy of Call Tracking for use with external messaging devices. This is useful in cases where multiple copies of the Call Tracking module have been set up to send alarm messages to external devices such as fax machines, pagers, remote modems, or printers. When an alarm is received by the external device, the Call Tracking ID Code identifies that particular copy of Call Tracking from any others. Therefore, users will be able to determine which Call Tracking registered the alarm.

When you first install Call Tracking, its ID code will default to '00000000001'. To change this code, click on **Call Tracking ID Code** from the File drop-down menu and enter the new numeric code at the prompt.

Schedule

Call Tracking contains certain functions which are involved in its overall operation and setup. By scheduling these functions to be executed at a later date or time, you can automate the setup for Call Tracking to accommodate activity on the Meridian 1.

For example, you can monitor calls which are made after business hours by scheduling the Start and Stop Real Time Connection functions to execute during hours when the office is closed.

You can schedule the following functions:

- Start Real Time Connection
- Stop Real Time Connection
- Start File Processing

- Stop File Processing
- Print Data
- Reset
- Shutdown Call Tracking
- Open Detail File
- Close Detail File

To schedule these functions, click on **Schedule** from the File drop-down menu and click on the specific function name in the Schedule cascading menu. For certain scheduled activities, the system may prompt you to select the filename being processed (i.e., Start File Processing). For these cases, enter the desired filenames and click on the **OK** command button to schedule them.

Once the activity is selected from the drop-down list, the MAT Common Services Scheduler Event Selection dialog will appear listing this function as a Scheduler Event. Click on the **Edit** command button from this dialog to access the Scheduler Configuration dialog and enter its scheduling criteria.

Once you have entered this function's scheduling criteria, click on the **OK** command button to save it and return to the Event Selection dialog. Click on the **OK** command button to save this configuration and return to Call Tracking. This activity will then be executed by the Scheduler at the specified date and time.

Print

Use this command to print a snapshot of the main Call Tracking graphs and a summary of the call detail information. To print this information to the defined output device, click on **Print** from the File drop-down menu.

This report includes the following information.

Start Time/Date: These fields represent the date and time when you started monitoring the calls.

Longest Duration: These fields list the call record information for the longest incoming, outgoing, tandem, and internal calls.

Recent Call Records: This section of the report lists the last 20 call records.

Call Origin Graph/Total Records Processed: This section of the report displays the Call Origin Graph and list the totals for types of records collected (i.e., total incoming, outgoing, tandem, and internal). It also includes their percentage amounts.

Percent Calls by Duration Graph: This section of the report displays the Percent Calls by Duration Graph and itemizes the total calls by time increments and assigns percentage amounts to these increments.

Call Origin Pie Chart: This section of the report displays the Call Origin Pie Chart and includes a numerical value for the total number of records processed by this graph.

Ring Time Meter: This section of the report displays the Ring Time Meter and includes a numerical value for its display.

User Defined Speedometer: This section displays the User Defined Speedometer and lists the number of call records which match its criteria and its sample size.

Print Setup

Use the Print Setup function to select a printer for the Call Tracking reports. You must have previously defined this printer using the Windows Control Panel function. To select a printer, click on **Print Setup** from the File drop-down menu and then click on either the **Default Printer** option button or the **Specific Printer** option button. Select the specific printer from its drop-down list box and click on the **OK** command button to select the printer.

Reset

Use the Reset function to reset the call data monitoring process and clear the graphs to begin another block of calls during a data collection. To reset the graphs, click on **File** from the main window and select **Reset**.

This command is useful if you wish to reset the graphs for the next set of call records. This function only resets the graphs and call meters.

Reset Longest Call

As Call Tracking collects call information from the Meridian 1, it displays the longest calls (according to their type) in the Recent Call History dialog. These are the calls with the longest duration based on the accumulated call records of the current data collection session. The Reset Longest Call command resets the current session's longest outgoing, incoming, tandem, and internal calls back to 0. This command is useful if you wish to view the longest calls for different time frames without resetting all of the Call Tracking graphs and listings.

To reset the longest calls for the current session, click on **Reset Longest Call** from the File drop-down menu. At the prompt: **Reset longest call information. Are you sure?**, click on the **Yes** command button to reset the longest calls. Notice that the values in the Longest Call fields of the Recent Call History window will be set to 0.

Employee Database Options

Call Tracking contains an option which allows you to view employee information for a collected call record. This will display the employee's extension information (e.g., name, department, etc.) in the Employee Information field of the Current Call Information dialog.

Call Tracking uses the Employee Database to display the employee information matching an extension (or authorization code). The Employee Database is generated from the MAT Call Accounting Billing Database. This Billing Database is initially generated from the Set Database in Station Administration and is updated with additional employee information as required by Call Accounting. If you wish to edit the Call Tracking Employee Database, then you must use MAT Call Accounting to update its Billing Database.

Note: If you do not have MAT Station Administration or Call Accounting installed, then Call Tracking cannot display the corresponding employee information for each collected CDR record. Call Tracking references the MAT Station Administration and Call Accounting Billing Database to generate its Employee Database.

For more information on obtaining set information from the Set Database, refer to the *Station Administration User guide*. For information on editing the Billing Database, refer to the *Call Accounting User guide*.

Rebuild Index

The Rebuild Index function allows you to manually reindex the Employee Database during the Call Tracking session. This will ensure that the employees listed in the Employee Database correspond to the correct extensions.

The Employee Database is automatically indexed when Call Tracking is accessed. This creates a lookup table in the computer's memory for quick access to the Employee Database file. No index file is created on the disk. Since the table exists in memory, any changes to the Employee Database file must be updated in memory.

If the Employee Database records are edited during the Call Tracking session either as a result of the Billing Database being updated from MAT Call Accounting or as a result the Set Database being updated from Station Administration, then its employee information may not match the proper extensions. You must therefore use the Rebuild Index function to index the database and synchronize the employee records with their extensions.

Note: You only need to reindex the Employee Database if it is updated from another application during a Call Tracking session.

To index the Employee Database while running Call Tracking, select **Rebuild Index** from the Employee Database Options cascading menu. Wait for Call Tracking to rebuild the index for the Employee Database. Once it completes reindexing the database, Call Tracking can collect the call records and display its corresponding employee information correctly.

Index by Authorization Code

The Rebuild Index command only indexes the Employee Database by the current setting. It links the information to the call records by the extension number. In certain cases, you may require Call Tracking to display calling activity by authorization code rather than by extension (if these values are included in the call record). Use the Index by Authorization Code function to link the call records to the Employee Database by their authorization codes instead of their extensions.

To index the Employee Database by authorization code, select **Index By Auth Code** from the Employee Database Options cascading menu. When the system prompts you for confirmation of this indexing procedure, click on the **OK** command button. This will link the records in the Employee Database to specific authorization codes. Call Tracking can then display the call records as they match each employee's authorization code.

Additional Information

To include the Employee Database information in the Current Call Information dialog, click on **Additional Info** from the Employee Database Options cascading menu. The check mark next to this command indicates that the employee information will be displayed during this session.

Detail File

Call Tracking provides you with the option of saving calls to a separate call detail file as they are being monitored. This way, you can later review these calls or use them with other MAT applications.

To open a detail file, click on **Detail File** from the File drop-down menu and select **Open Detail File** from its cascading menu. In the File Selection dialog which appears, enter the filename of the detail file and click on the **OK** command button to select it. Call Tracking will save any call records it collects either from another data file or the Meridian 1 to this detail file. It will continue to append these call records to this file until you click on the **Close Detail File** menu item in the Detail File cascading menu.

You can also select a secondary backup detail file to store your call records in case the first detail file is accidentally corrupted or deleted. To select a secondary detail file, click on **Secondary Detail File** from the Detail File cascading menu. In the File Selection dialog, enter the filename of this secondary detail file and click on the **OK** command button. If the main detail file becomes corrupted or cannot be opened, then this secondary detail file will be used to store these call records.

Note: Only one of these call detail files will be opened at one instance.

Pause

While Call Tracking is collecting data and the graphs are being updated, you may want to pause it to view them more carefully. This is especially useful if the records are being collected too quickly. Click on **File** and click on **Pause** to temporarily pause the data collection. Notice the check mark when you turn on the **Pause** toggle. The calls will resume again when you click on **Pause** to turn it off.

Note: During Real Time collection, any records which are output from the Meridian 1 during the Pause mode will be lost.

Exit

To exit from Call Tracking, click on **Exit** from the File drop-down menu. If Call Tracking is currently monitoring calls either in real time mode or from a data file, you must first end the monitoring session (by using the Disconnect or End File commands) before exiting from the system.

Real Time

The Real Time function allows you to connect to the Meridian 1 and start and end your real time monitoring sessions. Call Tracking cannot monitor calls output from the Meridian 1 unless it is properly set up for communications with the Meridian 1. These settings are defined in the Site Configuration function from MAT Common Services.

To connect to the Meridian 1, first select the proper connection information in the Communications Database for that site (each site represents a different Meridian 1) and then select **Connect**. This information is vital in connecting to the Meridian 1 and starting the communications process.

Edit Database

To view the Communications Database and select its parameters, click on **Edit Database** from the Real Time drop-down menu in the main window. Its dialog will appear displaying the communications and connection criteria for this site's Meridian 1. From this dialog, you can select the SDI and predefined script filename to be used for connection to this site's Meridian 1.

The remaining fields of this dialog are updated according to the parameters set in the Site Configuration application from MAT Common Services and therefore appear grayed. These are listed for informational purposes.

Figure 4
Communications Database dialog

SDI: Click on the specific SDI option or **File** in the SDI option button box to select the SDI (Serial Data Interface) or filename from which the call records will be collected. The SDI number identifies the communications record from which call data will be collected. When you select an SDI number from this option button box, its parameters will appear in the remaining fields of this dialog. These parameters were previously defined for each SDI in the Site Configuration function from MAT Common Services. If you wish to select a file for data collection, select the **File** option button and then enter its associated filename in the Filename field. For more details on configuring the SDI, refer to the Site Configuration section in the *MAT Common Services User guide*.

Filename: If you selected **File** from the SDI Port options, then enter the filename (including the drive and directory) from which data will be collected and processed. This allows you to collect call data from a file (virtual port) in Meridian 1 format. The data collection script can then process this file's CDR data into normalized format. If you do not specify a drive or directory in this field, then the system will use the MAT program directory as the default (e.g., C:\MAT\).

Script Name: In this field, enter the name of the script file which the Data Server runs as invoked by the Data Supervisor to set up communications with the Meridian 1. The system cannot communicate without a script file. Call Tracking includes a set of default script files which you can select to collect data from the Meridian 1.

Note: Ensure that you enter a valid script filename in this field before attempting to start a monitoring session. Refer to Appendix B—Script File Summary in the *MAT Common Services User guide* for more details on which scripts to use for which scenarios.

Scripts contain the parameters and commands used to communicate with the Meridian 1 or buffer unit. Each script file is designed to communicate with an external source containing specific requirements. For example, the file SL1.SCR is used to communicate with the Meridian 1 directly to its SDI; the script file 2000FD.SCR is used to communicate with the Meridian 1 through an MDR-2000 buffer unit. Other scripts would be used for communications between other MAT applications and the Meridian 1.

M1 Communication Parameters

The following fields in the Communications Database contain the communication parameters as defined for the selected SDI. Notice that they appear grayed and therefore cannot be edited. They are for informational purposes only.

Site Name: This field contains the name of the site from which data is being collected (e.g., Company Head Office, Plant, or Remote Office).

Baud Rate: This option button box lists the baud rate at which Call Tracking will communicate with the Meridian 1 through its connected modems. This includes the following: **110, 300, 600, 1200, 2400, 4800, 9600, or 19200.**

Data Bits: This option button box lists the data bits required for the modem connection. This includes the following: **5, 6, 7, or 8.**

Parity: The Parity option button box lists the parity for the modem connection. This includes the following: **None, Odd, Even, Mark, or Space.**

Stop Bits: This option button box lists the stop bits for this modem connection. This includes the following: **1, 1.5, or 2.**

Device: The Device fields list the connection parameters for the PC. This includes the PC's port number, the telephone number to be dialed for connection to the Meridian 1, and the type of modem to be used for communications.

Port: The COM port buttons list the number of the PC's port where the modem is connected. This includes the following: **COM1**, **COM2**, **COM3**, or **COM4**.

Phone Number: This field contains the telephone number which the PC's modem will dial to connect to the modem at the Meridian 1.

PC Modem Type: The PC Modem Type field lists the type of modem at the PC which is being used for communication.

M1 Modem Type: The M1 Modem Type field lists the type of modem at the Meridian 1 which is being used for communication.

Once you have edited this information, click on the **OK** command button to save it and exit to the Call Tracking main window.

Connect

Once you have selected the communications parameters from the Communications Database, click on **Connect** from the Real Time drop-down menu to start the real time monitoring session. Call Tracking will then attempt to dial and connect to the Meridian 1. Once connected, it will start to monitor the call records from this site.

Disconnect

To stop the real time monitoring, click on **Disconnect** from the Real Time drop-down menu.

Data File

The Data File commands allow you to monitor a specific file which contains a group of processed call records already collected from the Meridian 1. This provides you with a different method of monitoring your calls.

For the Data File option, Call Tracking reads and displays normalized detail files (e.g., DETAIL1.DAT). A normalized detail file is an ASCII format text file containing the raw CDR data records output from the Meridian 1. The CDR records must be converted to this normalized format during a data collection procedure (either as it is collected from a supported buffer unit or using a script function). It uses script commands to convert the CDR records output from the Meridian 1 to this normalized format.

Refer to Appendix B—Script File Summary in the *MAT Common Services User guide* for more details on script files. As well, refer to the *Call Accounting User guide* for more details on data collection and conversion.

You can, for example, collect information from the Meridian 1 over a period of time and save it to a file (e.g., DETAIL1.DAT). When you select **Data File** and click on **Start File**, you can simulate the real time call collection and monitoring process. This is useful if a Meridian 1 is at a distant site (long distance charges would apply) and you do not wish to poll data from this site over several hours in real time mode.

Start File

To start reviewing records from the call detail file, click on **Data File** and select **Start File**. From the Name of Data File to Process dialog which appears, select the name of the normalized call detail file and click on the **OK** command button. Once you select the file, Call Tracking will collect from it until you select a new name.

If you are using the Call Database from MAT Call Accounting, you can monitor this file (same file format) by selecting the name of the call detail file (e.g., DETAIL1.DAT) from this dialog. It will be stored in the same site subdirectory as MAT Call Accounting.

End File

To stop reviewing records from the call detail file, click on **End File** from the Data File drop-down menu. To start the reviewing process again, click on **Start File**. This will not resume the viewing from where you stopped; it will start it from the beginning of the file.

Pacing Factor

Set the speed at which your calls are being displayed by selecting **Pacing Factor** from the Data File drop-down menu. In the Pacing Factor dialog, click on the scroll command buttons to speed up or slow down the data display. You can set the delay to have a slow pace (5 second delay between records) or a fast pace (0 second delay between records). When you resume the data presentation, these records will appear according to this pacing factor.

Turn on (X) the Continuous check box to have Call Tracking continue presenting the data file when the data file ends. Call Tracking will start at the beginning of the file again and resume presenting the call data continuously until you click on **End File** or turn off (blank field) this check box.

Note: During this continuous display, the statistics will be cleared and the graphs will start displaying again from 0 when the detail file is restarted.

This pacing factor only applies to the call records as they are presented through the call detail file. If you are running a real time monitor, the pace is not affected.

Filters

Use the Filters function to set the filters for the call records as they are being collected in real time mode or reviewed from a detail file. You can for example, set a filter to have Call Tracking only collect call records having a set minimum call duration. You can select up to 10 different filters and have Call Tracking include or exclude the call records matching these filters.

Filter Definitions

Use the Filter Definitions function to select the filters for the monitoring session. Call Tracking will only collect and list information on the call records which meet the criteria entered in these filter fields. Call Tracking will report on any call records that meet the criteria for at least one of these filters (except for Originating ID and Terminating ID where you can select them to be exclusive).

To access the Filter Definition dialog, click on **Definitions** from the Filters drop-down menu. Once you click on **Enable** for each filter definition, its filters will be activated.

In each field, you can also enter an asterisk (*) as a wild card mask for all subsequent characters or a question mark (?) to replace a single character. This way, you can enter filters to include a range of values. If you enter an asterisk (*) as the first digit, it will mask all subsequent characters (operates similarly to the Microsoft DOS wild card flag).

Note: Only call records meeting the filter criteria will be collected to the Call Tracking databases. Therefore, depending on the mode of collection from the Meridian 1, all other records may not be saved and therefore lost.

Enter the filter information for each filter in the following fields.

Figure 5
Filter Definition dialog

Enable: To enable the current filter, click on the **Enable** check box to turn it on (X). Call Tracking will only filter call records for filters which have been enabled using this check box. You cannot enable a filter definition without entering any filter criteria in its fields. When you attempt to save an enabled filter which contains all blank fields (by clicking on **OK**), Call Tracking will display the message: **Cannot enable a blank definition**. Ensure that at least one of this definition's fields contains a value and click on the **OK** command button to save it.

Description: In this field, enter a description of this filter for informational purposes (maximum of 30 characters). This distinguishes this filter from the other defined filters.

Originating ID: In the Orig. ID fields, enter a filter range for the call records' originating ID. Ensure that you enter the proper designators as the first characters in these IDs. Select the designators from the following: D = DN or extension, T = trunk, and A = attendant.

Terminating ID: In the Term ID fields, enter a filter range for the call records' terminating ID. Ensure that you enter the proper designators as the first characters in these IDs. Select the designators from the following: D = DN or extension, T = trunk, and A = attendant.

And ID's: Turn on (X) the And ID's check box to include the ranges in both the Originating and Terminating ID fields in this filter. If you enable this feature, then only calls made from the extensions/trunks in the ranges of the Originating ID fields AND to the extensions/trunks in the Terminating ID fields will be displayed.

Date: In these fields, enter the filter range for the call records' date (mm/dd).

Time: In these fields, enter the filter range for the call records' time of day in 24 hour format (hh:mm:ss).

Duration: In the Duration fields, enter the filter range for the call records' duration (hh:mm:ss).

Digits Dialed: In this field, enter a filter for the call records' digits dialed.

Authorization Code: In this field, enter a filter for the call records' authorization code.

Account Code: In this field, enter a filter for the call records' account code.

Calling Line ID: In this field, enter a filter for the call records' calling line ID.

Ring Time: In this field, enter the filter for the call records' ring time (if applicable).

This completes the entries for the current filter definition. You can define any remaining filters by clicking on the **Next** or **Previous** command buttons. Notice that the filter number at the top of the screen will change to match the new filter definition. Enter the new filter criteria for each new filter definition.

To clear the fields in the current filter definition, click on the **Clear** command button.

Once you have completed specifying the filter definitions, click on the **OK** command button to save them and exit to the main window. You cannot enable a filter definition without entering any filter criteria in its fields. When you attempt to save an enabled filter which contains only blank fields, Call Tracking will display the message: Cannot enable a blank definition. Ensure that at least one of the fields for this definition contains a value and click on the **OK** command button to save it.

Click on the **Cancel** command button to exit from this dialog without saving these changes.

Note: If you access another record using the Next or Previous commands, the system will save the currently edited record.

Include/Exclude Filters

Once you have defined your filters and enabled them, click on the **Include** or **Exclude** toggle commands from the Filters drop-down menu to include or exclude all calls matching the filters. If you click on **Include**, Call Tracking will collect the call records matching the criteria you specified in the filters which have been enabled. If you click on **Exclude**, Call Tracking will exclude all the call records matching the filters which have been enabled. If you do not click on **Include** or **Exclude**, then Call Tracking will display all call records as they are output from the Meridian 1.

Note: Call Tracking will not include or exclude any filters that are not defined.

Alarms

The Alarms function is a key feature of Call Tracking which allows you to set an alarm monitor to warn of suspicious calls. These alarms can be sent to your PC as a visual or audible alarm, or to an external device such as a log file, printer, network workstation, pager, modem, or fax machine.

Alarm Definition

The first step in setting up your alarms is to define the alarm criteria. To enter the alarm definitions (for up to 10 alarms), click on **Definitions** from the Alarms drop-down menu. The first Alarm Definition dialog will appear allowing you to enter its criteria.

Use wild card characters (asterisk and question mark) to define a range of alarm conditions. You can enter an asterisk (*) or a question mark (?) as wild cards. This way you can set the alarm definition to warn you of multiple calls with minimal criteria. If you enter an asterisk (*) as the first digit, it will mask all subsequent characters (operates similarly to the Microsoft DOS wild card flag). For example, '1976*' or '19?6*' in the digits dialed field would match '19765551212', '19465551234', '1966', etc.

Note: The system will search for records faster if you include the exact digits (e.g., D0000225 would be returned faster than D00002*).

Enter the alarm definitions in the following fields.

Figure 6
Alarm Definition dialog

Alarm Definition 1

☒ **Enable** Description :

Pager Code : Action :

Orig ID : ☐ **And IDs** Digits Dialed :

Term ID : Auth Code :

Date : Account Code :

Time : Calling Line ID :

Duration : Ring Time :

Alarm Mode

☒ Log File ☐ Network

☐ Visual ☐ Pager

☐ Audio ☐ Modem

☐ Printer ☐ Fax

Enable: To enable the current alarm definition, turn on (X) the Enable check box. Call Tracking will only signal an alarm on call records for alarm definitions which have been enabled.

Description: In this field, enter a description of this alarm. This will appear as a message when a call matching this criteria is encountered and the alarm is signaled. For example, if you set the alarm to display a visual alarm, then when a call matching this alarm criteria is encountered, this description will appear in the visual alarm message box.

Pager Code: In this field, enter a unique message code which will be displayed on the pager for this alarm. This will identify the type of alarm being signaled. You can enter a code from 10 to 99999 in this field (codes 0 to 9 are reserved). For example, enter: **041** to send the message '041' to the pager to represent unauthorized long distance calls. Enter the actual description of this alarm in the Description field.

Action: In this field, enter the optional action message for this alarm. This message will be displayed on the Visual Alarm dialog along with the description. It provides additional information to this alarm and can be used to remind the user to perform a specific activity when the alarm is encountered (e.g., Contact Supervisor).

Originating ID: In the Orig. ID fields, enter the alarm range for the call records' originating ID. Ensure that you enter the proper designators as the first characters in these IDs. Select the designators from the following: D = DN or extension, T = trunk, and A = attendant.

Terminating ID: In the Term ID fields, enter the alarm range for the call records' terminating ID. Ensure that you enter the proper designators as the first characters in these IDs. Select the designators from the following: D = DN or extension, T = trunk, and A = attendant.

And ID's: Turn on (X) the And ID's check box to include the ranges in both the Originating and Terminating ID fields in this alarm. If you enable this feature, then only calls made from the extensions/trunks in the Originating ID fields AND to the extensions/trunks in the Terminating ID fields will generate alarms.

Date: In these fields, enter the alarm range for the call records' date (mm/dd).

Time: In these fields, enter the alarm range for the call records' time of day in 24 hour format (hh:mm:ss).

Duration: In the Duration fields, enter the alarm range for the call records' duration (hh:mm:ss).

Digits Dialed: In this field, enter an alarm pattern for the call records' digits dialed.

Authorization Code: In this field, enter an alarm range for the call records' authorization code.

Account Code: In this field, enter an alarm range for the call records' account code.

Calling Line ID: In this field, enter an alarm mask for the call records' calling line ID. For example, to match all calls originating from Dallas, enter: **214***.

Ring Time: In this field, enter an alarm mask for the call records' ring time (if applicable).

Alarm Mode: Select the following types of alarms to be generated when an alarm definition is met. Click on the check boxes for any or all of the following alarm modes.

Log File: Turn the Log File check box on (X) to append the call record which set off the alarm to the Alarm Log File. To view the call records in this file, click on **Log** from the Alarms drop-down menu. This will store the last 200 call records which generated alarms to the log file.

Visual: Turn the Visual check box on (X) to display a dialog box alarm containing the call record which set off the alarm. When the visual alarm dialog appears, click on the **View** command button to view the details of the call including the extension and the employee information (if you have enabled the employee information). Click on the **OK** command button to acknowledge this alarm and resume the data collection and monitoring process.

When an alarm condition is met and the visual alarm dialog appears, you can click on the **Disable All Definitions** command button to turn off the alarm definitions. This is useful if, for example, too many alarms are appearing to allow you to view them easily. You can then reset these masks by clicking on **Definitions** from the Alarms drop-down menu.

In the alarm configuration dialog for each definition, click on the **Enable** check box. When you disable all of the alarm definitions (by clicking on the **Disable All Definitions** command button), this will stop recording all of the alarms including those to the alarm log. You must reset each of these alarms in order for Call Tracking to log them again.

Audible: Turn this check box on (X) to sound an audible alarm on your PC's speaker when an alarm is encountered. The audible alarm will sound only if you set the visual alarm (you cannot turn this on if the Visual alarm is not turned on). Therefore, when the alarm activates, you can hear the sound of the alarm from your PC's speaker and you do not need to continuously watch the PC's monitor for any alarms.

Some sound drivers will turn off interrupts when generating sounds thus causing sporadic behavior. This can usually be adjusted by modifying your sound driver parameters in the Windows Control Panel.

Printer: Turn on (X) the Printer check box to print the call record information to a predefined printer when an alarm is encountered. The system will print the output to the printer you selected as your Windows output device.

Network: If Call Tracking has been installed on a network workstation, select this alarm mode by turning this check box on (X). This will send a network message over the network informing the user at another workstation of the alarm. This allows users to monitor calls through other workstations on the network. Different types of networks can use different methods of managing messages. Refer to your network software user's guide for details on network messages.

Pager: Turn this check box on (X) to page a predefined pager number of an alarm condition. When an alarm is encountered, Call Tracking will call this pager. To define the pager number and parameters, enter this information in the Pager Communications Database using the Alarm Setup function (next section).

Modem: Turn this check box on (X) to send an alarm message from the monitoring PC to another PC attached through a modem defined in the Modem Communications Database (next section). This will send a message similar to the printer or fax alarm through the modem to another PC.

Fax: Turn the Fax check box on (X) to send a facsimile message of the alarm (similar to the printer alarm message) to a predefined fax number.

The Call Tracking fax alarm option requires a fax application to be running under Windows in order for it to send fax messages. It currently supports only WinFax PRO™ and is not compatible with other fax software applications. Install WinFax PRO™ onto your PC before attempting to use the Call Tracking fax alarm option. Refer to the documentation provided with WinFax PRO™ for complete details on installing this software.

Once you have entered the information for this alarm, click on the **OK** command button to save it.

This function allows you to enter up to 10 different alarm definitions, each of which will appear in a new dialog. To view or set the next alarm definition, click on the **Next** command button. Click on the **Previous** command button to view or set the previous alarm definition.

If you wish to clear the criteria of the currently selected alarm definition, click on the **Clear** command button.

Note: When a call record matches more than one alarm definition, only the first definition it matches will generate an alarm.

Alarm Setup

Use the Alarm Setup function to define the alarm parameters used by the Alarm Definitions. These parameters are global and can therefore be used by any alarm definitions. This includes such information as: pager and modem alarm parameters, audible alarm time-outs, and inactivity alarm monitoring.

To enter the alarm setup, click on **Setup** from the Alarms drop-down menu. This will access the Alarm Setup Information dialog in which you can enter the global parameters to be used by the alarms.

Figure 7
Alarm Setup dialog

Alarm Setup Information	
Pager Alarm Parameters Modem Alarm Parameters Fax Alarm Parameters	Audible Alarm Configuration Audible Alarm TimeOut (sec) : 30
Fax Manager Filename : FAXMNG.EXE	
Network Alarm Configuration Command : SEND "%1" TO ABC	
Unknown Employee Alarm [00001] ☐ Enable ☒ Employee Additional Info Current employee index is extension.	Alarm Mode ☐ Log File ☐ Network ☐ Visual ☐ Pager ☐ Audible ☐ Modem ☐ Printer ☐ Fax
Inactivity Alarm [00002] ☐ Enable Inactivity Duration (min) : 60 Exclude Time Period : To	Coverage ☐ Sunday ☐ Thursday ☐ Monday ☐ Friday ☐ Tuesday ☐ Saturday ☐ Wednesday Alarm Mode ☐ Log File ☐ Network ☐ Visual ☐ Pager ☐ Audible ☐ Modem ☐ Printer ☐ Fax
OK Cancel Help	

Pager Alarm Parameters: Use the Pager Alarm Parameters function to define the parameters for pager connection. When the Pager alarm mode is selected in the Alarm Definition function, it will signal the pager defined in this database. To access the Pager Communications Database, click on the **Pager Alarm Parameters** command button.

Enter the following parameters in the fields for this database.

Site Name: This read only field displays the name of this site (e.g., Company Head Office, Plant, or Remote Office).

Script Name: From this drop-down list box, select the name of the predefined script file which will be used to send the message to the pager. For this pager alarm, select: **CMPAGER.SCR**.

Baud Rate: This option button box lists the baud rate at which Call Tracking will communicate with the pager through its connected modems. Select from: **110, 300, 600, 1200, 2400, 4800, 9600, or 19200**.

Data Bits: This option button box lists the data bits required for the modem connection. Select from: **5, 6, 7, or 8.**

Parity: The Parity option button box lists the parity for the modem connection. Select from: **None, Odd, Even, Mark, or Space.**

Stop Bits: This option button box lists the stop bits for this modem connection. Select from: **1, 1.5, or 2.**

Timing Parameter: In the Timing Parameter field, enter a value for the number of seconds which the pager function must wait after connecting to the paging service but before sending the message. This will account for any pager service messages which are displayed before entering the paging information.

Device: The Device fields list the connection parameters for the PC. This includes the PC's port number, the telephone number to be dialed for connection to the pager, and the type of modem to be used for communications.

Port: The COM port buttons list the number of the PC's port where the modem is connected. Select from: **COM1, COM2, COM3, COM4, or File.**

Phone Number: This field contains the telephone number which the PC's modem will dial to connect to the pager.

Modem Type: The PC Modem Type field lists the type of modem at the PC which is being used for communication. This appears grayed for pager configurations.

Filename: If you selected **File** from the Device options, then enter the filename from which data will be collected and processed.

Once you have entered the parameters in these fields, click on the **OK** command button to save them and return to the Alarm Setup dialog.

Modem Alarm Parameters: Use this function to define the communications parameters for modem communications. When the **Modem** alarm mode is selected in the Alarm Definition function, Call Tracking will signal the modem defined in this database. To access the Modem Communications Database, click on the **Modem Alarm Parameters** command button.

Enter the following parameters in the fields for this database.

Site Name: This read only field displays the name of this site (e.g., Company Head Office, Plant, or Remote Office).

Script Name: From this drop-down list box, select the name of the script file which will be used to send the message to this modem. For this modem alarm, select: **CMALARM.SCR**.

Baud Rate: This option button box lists the baud rate at which Call Tracking will communicate with the connected modem. Select from: **110, 300, 600, 1200, 2400, 4800, 9600, or 19200**.

Data Bits: This option button box lists the data bits required for the modem connection. Select from: **5, 6, 7, or 8**.

Parity: The Parity option button box lists the parity for the modem connection. Select from: **None, Odd, Even, Mark, or Space**.

Stop Bits: This option button box lists the stop bits for this modem connection. Select from: **1, 1.5, or 2**.

Device: The Device fields list the connection parameters for the PC. This includes the PC's port number, the telephone number to be dialed for connection to the modem, and the type of modem to be used for communications.

Port: The COM port buttons list the number of the PC's port where the modem is connected. Select from: **COM1, COM2, COM3, COM4, or File**.

Phone Number: This field contains the telephone number which the PC's modem will dial to connect to the pager.

Modem Type: The PC Modem Type field lists the type of modem at the PC which is being used for communication.

Filename: If you selected **File** from the Device options, then enter the filename from which data will be collected and processed.

Once you have entered the parameters in these field, click on the **OK** command button to save them and return to the Alarm Setup dialog.

Audible Alarm Timeout: If an audible alarm has been selected in the Alarm Definition function and when an alarm has been encountered, the alarm will continue to sound until a user acknowledges it (by clicking on the **OK** command button of the accompanying visual alarm dialog). In the Audible Alarm Timeout field, enter the time in seconds when the audible alarm will stop sounding if no user acknowledges the audible alarms. Its corresponding visual alarm will still continue to signal until a user acknowledges it.

Fax Alarm Parameters: To enter the fax alarm criteria for this setup, click on the **Fax Alarm Parameters** command button. In the Fax Alarm Configuration dialog which appears, enter the following information.

Fax Number: In this field, enter the telephone number to be dialed by the fax utility. When an alarm is encountered, its fax alarm message will be sent to this fax number.

Deliver to: In this field, enter the name to be printed on the fax message.

Once you have entered these parameters, click on the **OK** command button to add them to this setup and return to the previous dialog.

Fax Manager Filename: In this field, enter the full directory and filename of the installed fax manager software.

Note: The Call Tracking fax alarm function requires a fax application to be running under Windows in order for it to send fax messages. It currently supports only WinFax PRO™ and is not compatible with other fax manager applications. Install WinFax PRO™ onto your PC before attempting to use the Call Tracking fax alarm option. Refer to the documentation provided with WinFax PRO™ for complete details on installing this software.

Network Alarm Configuration Command: If the **Network Alarm** mode has been selected, then enter the network command which sends the alarm message to a specific workstation.

This network alarm message is dependent on the type of network on which Call Tracking is installed. Since each network is configured to accept different network messages, refer to your Network software documentation for more details on the different network messages which you can use.

Novell Netware 3.1, for example, uses the following syntax for network messages: **SEND "%1" TO JDOE**. In this case, "%1" is a placeholder for the text entered in the Description field of the Alarm Definition function and JDOE represents user name which was previously configured in the network. The commands SEND and TO are Novell commands used to SEND messages TO a defined user name.

The following example demonstrates this feature.

To define a network alarm, access the Alarm Definition function, turn on the alarm type Network check box, and in the Description field enter: Alarm Threshold Exceeded. Enter the alarm criteria in the remaining fields and save this alarm. Then access the Alarm Setup function, enter: **SEND "%1" TO JDOE** in the Network Alarm Configuration Command field, enter the remaining alarm setup criteria in their fields, and save this setup. When the alarm criteria are met, Call Tracking will send the alarm as the message Alarm Threshold Exceeded to the user JDOE on this network.

Note: Before attempting to use the network alarm, you must ensure that your network administrator has configured the current PC to be run on a network. Once configured, you can select **Network** as an alarm mode and send the appropriate network message as it is entered in this field to the selected workstation.

Unknown Employee Information: Select the following options to invoke an alarm when Call Tracking detects a call record with an unknown employee extension or authorization code.

Enable: Turn this check box on (X) to invoke an alarm for an unknown employee extension or authorization code.

Employee Additional Information: Turn this check box on (X) to display additional employee information in the Current Call Record dialog when this alarm is invoked.

The text below the Employee Additional Information check box lists the current employee index mode (either extension or authorization code). Depending on this index mode, the unknown employee information alarm will be based on either an unknown extension or authorization code. Use the Employee Database Options (from the File drop-down menu) to change this mode.

Note: This option can also be controlled from the Employee Database Options function. However, it must be activated in order for the Unknown Employee Information alarm to function.

Alarm Mode: From these alarm modes, select the type of alarm which will be used when the Unknown Employee alarm is encountered. Select it from the following:

Log File	Network
Visual	Pager
Audible	Modem
Printer	Fax

Inactivity Alarm Monitoring: Select the following options to have Call Tracking invoke an alarm if it does not detect CDR activity.

Enable: Turn this check box on (X) to invoke an alarm for inactivity.

Coverage: From the Coverage options, select the date ranges which will be monitored for inactivity. For example, if you wish to only monitor the system for inactivity during the work week, then click on the **Monday** to **Friday** check boxes.

Exclude Time Period: In these fields, enter the time range which will not be included for this monitoring process. For example, if you wish to exclude evening hours when no calling activity is expected, then select the time range for evening hours.

Inactivity Duration: In this field, enter the length of time in minutes that the system must remain inactive before an inactivity alarm is generated. If the system does not detect any calls within this duration, then the inactivity alarm will signal.

Alarm Mode: From these alarm modes, select the type of alarm which will be set off when the Inactivity Duration alarm is encountered.

Select the alarm mode from the following:

Log File	Network
Visual	Pager
Audible	Modem
Printer	Fax

Once you have entered the parameters for this function, click on the **OK** command button to save them and exit to the main window. Click on the **Cancel** command button to exit from this dialog without saving these edits. Click on the **Help** command button to obtain help for this topic.

Note: The numeric values next to the Unknown Employee Alarm and Inactivity Alarm are the reserved pager codes for these alarms.

Alarm Log

To view a listing of all of the alarm calls that have been logged using the Log File alarm mode, click on **Log** from the Alarms drop-down menu. This will display the last 200 call records that signaled the alarms having the Log File mode turned on. Each alarm definition accompanies the call record which it signaled. This way you can scan through the call records based on specific alarm definitions.

To view the details of a specific call record, double-click on it. The Call Information window will appear listing this information.

Purge: Click on the **Purge** command button to erase this alarm log. This is useful if you wish to start a new list of call records matching the alarm criteria.

Detail File: Click on the **Detail File** command button to save this log (last 200 records) to a file in normalized format. If you are using MAT Call Accounting, you can later retrieve this file for costing and reporting purposes.

Print: To print a copy of this alarm log, click on the **Print** command button.

Exit: Click on the **Exit** command button to exit from the alarm log to the main window.

Help: Click on the **Help** command button to obtain help for this topic.

Display

The Call Tracking graphical displays list the call record information in unique formats. To show a specific graphical display, click on its name in the Display drop-down menu (or simply double-click on the graphical display's icon).

Use the following commands to arrange the graphical displays on the Call Tracking main window.

- Display Detail Digits
- Auto Save Positions
- Arrange Icons
- All Icons
- Tile
- Refresh

Display Detail Digits: Certain graphical displays can list the call details of the collected call records. These include the digits dialed and any account codes or authorization codes which were entered when the call was initiated.

Turn on the Display Detail Digits toggle option from the Display drop-down menu to display the digits dialed, account codes, and authorization codes in any graphical displays which include this information. The check mark next to the Display Detail Digits command indicates that the detail digits will be displayed in these windows. Turn this toggle off to suppress the display of these digits from these windows.

Auto Save Positions: Click on the **Auto Save Positions** toggle command from the Display drop-down menu to keep the graphical displays in their current positions for subsequent sessions. The check mark next to Auto Save Positions indicates that the graphical displays will automatically appear in the same positions when you access Call Tracking again.

Arrange Icons: Each Call Tracking graphical display window can be minimized to an icon. Click on **Arrange Icons** from the Display drop-down menu to arrange the displayed icons.

All Icons: Click on **All Icons** from the Display drop-down menu to minimize all of the graphical display windows to their icon form.

Tile: Click on **Tile** from the Display drop-down menu to arrange the following graphical displays in the Call Tracking main window: Current Call Information; Ring Time Meter; Percent Calls by Duration Graph; Call Origin Graph; and User Defined Speedometer. The remaining windows will be displayed as icons at the bottom of the main window.

Refresh: In some cases, certain graphical display windows may contain additional elements from other windows which interfere with them (e.g., a window may appear in front of another window and cause its graphics to be altered). Click on **Refresh** from the Display drop-down menu to clean up the appearance of all of the graphical displays.

Once you have defined the positions of the graphical display windows in the Call Tracking main window, you can move them around the screen or minimize them to their icon forms by using the standard Windows functions. Return to these commands whenever you wish to arrange the graphical displays or their icons.

Help function

Call Tracking provides a Help facility throughout your session from which you may obtain Help for a particular feature. To access the Windows Help function, click on **Help** from any dialog which displays the Help command. The Windows Help function will appear containing information specifically for that function. To view a list of topics for this module, click on the **Contents** command button. Choose from one of the items in this list by double-clicking on it to load the Help file and display it.

About Call Tracking

The About dialog lists the version and serial number of the Call Tracking module. To access this dialog, click on **About Call Tracking** from the Help drop-down window. Use this dialog to help service personnel identify this version of Call Tracking for diagnostics. Click on the **OK** command button to return to the Call Tracking main window.